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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,757	02/05/2004	Michael Rock	03-597-A	5681
20306 7590 02/21/2007 MCDONNELL BOEHNNEN HULBERT & BERGHOFF LLP 300 S. WACKER DRIVE 32ND FLOOR CHICAGO, IL 60606			EXAMINER EARLY, MICHAEL JACOBY	
			ART UNIT 3744	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/21/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/772,757

Applicant(s)

ROCK, MICHAEL

Examiner

Michael J. Early

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-8, 10, 11 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-8, 10, 11 and 13-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

**Claim Rejections - 35 USC § 102**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 10, 13, 14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Georgieff et al. (US 5,520,169).

Regarding claim 13, Georgieff et al. disclose a method that is capable of being performed by the disclosed apparatus and comprises collecting the waste anesthetic gas (see col. 5, lines 60-62); differentially condensing in a cooled chamber (19 – second pressure vessel; col. 5, lines 15-28; col. 6, lines 19-22) the one or more anesthetic agents from the other constituents in the waste anesthetic gas (see col. 3, lines 47-57; col. 4, lines 60-67; col. 5, lines 1-57); recovering the one or more anesthetic agent (see col. 1, lines 60-62; col. 4, lines 42-45); wherein the cooled chamber is cooled by a process selected from the group consisting of heat exchange methods (the fluid transported between the second and third pressure vessels inherently exhibits a form of heat exchange with the surrounding environment; col. 5, lines 38-57; col. 6, lines 19-25) and compression/re-expansion techniques (see col. 5, lines 17-57; col. 6, lines 26-46; Figure).

Georgieff et al. further disclose that the system is configured such that both the second and third pressure vessels (19, 24) are disposed within a cooling apparatus (20) (as seen in the Figure). Further disclosed is that the temperature of the of the fluid within the pressure vessels varies as the fluid is transported through the system (see col. 5, lines col. 5, lines 17-57; col. 6, lines 26-46; Figure), thus suggesting that some sort of heat exchange occurs within the cooling chamber due to the obvious change in temperature between the second and third pressure vessels.

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Regarding claim 10, Georgieff et al. disclose the one or more anesthetic agent is a potent, inhalational anesthetic agent (xenon; col. 1, lines 61-62; col. 4, lines 42-45).

Regarding claim 14, Georgieff et al. disclose the one or more recovered anesthetic agent is recycled and reused (see col. 6, lines 36-46).

Regarding claim 17, Georgieff et al. disclose the one or more recovered anesthetic agent is placed into a pressurized chamber (24 – third pressure vessel; col. 6, lines 36-46).

**Claim Rejections - 35 USC § 103**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 2-8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Georgieff et al. in view of Psaros et al. (US 5,558,087) and Hickie et al. (US 5,676,133).

Regarding claim 6, Georgieff et al. disclose a device (1 – anesthesia apparatus) for recovering one or more volatile, organic anesthetic agents from a waste anesthetic gas (see col. 2, line 66 – col. 3, line 3), the device comprising an entrance port (2 – expiration line) for accepting waste anesthetic gas from the anesthetic system (see col. 4, lines 45-46; Figure); a bypass circuit (8 – anesthetic gas transport line), wherein the bypass circuit is employed should the air flow in the device become blocked or the power to the device be terminated (see col. 4, lines 55-60; Figure); means for moving (16 – pump device) the waste anesthetic gas stream through the device (see col. 5, lines 8-10; Figure); a first condensation chamber (17 – first pressure vessel) for removing vapor from the waste anesthetic gas (see col. 5, lines 8-10; Figure); means for (18 – compression unit) removing the condensed vapor from the first condensation chamber (see col. 6, lines 14-18) provided by one or more pumps (the compression unit [18] functions as a pump; col. 5, lines 8-14; Figure) and the condensed vapor is

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removed by aerosolizing the fluid in a heat sink chamber (22 – discharge device) (as seen in the Figure); a second condensation chamber (19 – second pressure vessel) for recovering the one or more volatile, organic anesthetic agents from the waste anesthetic gas stream (as seen in the Figure); means for recovering (26 – pump device) the one or more condensed, recovered anesthetic agents from the second condensation chamber (see col. 5, lines 47-51; Figure); a storage canister or storage tank (24 – third pressure vessel) for holding the recovered anesthetic agents (see col. 5, lines 47-49; Figure); evacuating the remainder of the waste anesthetic gas stream from the device (see col. 6, lines 40-46).

Georgieff et al. do not expressly disclose the fluid to be removed from the waste anesthetic gas is water or of a means for evacuating.

Georgieff et al. further disclose that the system is designed to condense out the anesthetic agent from the system's other gas constituents (see col. 3, lines 25-57; col. 4, lines 18-30).

Psaros et al. teach of a dehumidifying device that is used to protect equipment from condensation that may occur during the transport fluid through the equipment (see Abstract). Psaros et al. further disclose that it is well known in the art that the water vapor in the air expired by patients that are connected to anesthetic equipment, may place the equipment in a position for high risk (see col. 1, lines 14-27).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the existing apparatus of Georgieff et al. by dehumidifying the fluid flowing through the apparatus, as taught by Psaros et al., so to provide a means of removing any water vapor and damage that it may cause within the apparatus upon the condensing of the vapor (see col. 1, lines 14-27), thus increasing the apparatus' reliability and efficiency.

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Georgieff et al. as modified by Psaros et al. do not expressly disclose a means for evacuating the remaining waste anesthetic gas from the device.

Hickle et al. teach of an apparatus that is used to prevent the contamination of a hospital's post anesthesia care unit (see Abstract). Hickle et al. further disclose of a scavenging and diagnostic system (12) that is comprised of a mask (16), which is used to administer anesthesia to a patient, a vacuum port (240), which is used to vent the used anesthesia to the atmosphere, and a housing or shell (230), which is located in-line between the mask and vacuum port, to be old in the art (see col. 7, lines 35-52; Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the existing apparatus of Georgieff et al. as modified by Psaros et al. by connecting the apparatus in-line between the component that administers anesthesia to patients and a vacuum port, as taught by Hickle et al., so that expired gas can be easily vented to the atmosphere (see col. 7, lines 35-52), thus ensuring that the system is not overpressurized.

Regarding claim 2, Georgieff et al. disclose the recited limitations above in claim 10.

Regarding claim 3, Georgieff et al. disclose the recited limitations above in claim 11.

Regarding claim 4, Georgieff et al. as modified by Psaros et al. and Hickle et al. disclose the recited limitations above in claim 6.

Regarding claim 5, Georgieff et al. disclose the means for moving the waste anesthetic gas stream through the device is provided by one or more pumps (16 – pump device).

Regarding claim 7, Georgieff et al. disclose the means for recovering the one or more condensed, recovered anesthetic agents from the second condensation chamber is

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provided by one or more pumps (26 – pump device) and the recovered one or more anesthetic agents are moved from the condensation chamber to a storage canister or storage tank (24 – third pressure vessel; col. 5, lines 47-49; Figure).

Regarding claim 8, Georgieff et al. as modified by Psaros et al. and Hickie et al. disclose the recited limitations above in claim 6.

Regarding claim 20, Georgieff et al. as modified by Hickie et al. disclose the recited limitations above in claims 4 and 6.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Georgieff et al.

Regarding claim 11, Georgieff et al. disclose the one or more anesthetic agent comprises isoflurane, desflurane, and sevoflurane (obvious design choice – the use of isoflurane as an anesthetic agent is old in the art; col. 1, lines 22-30).

Claims 15, 16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Georgieff et al. in view of Psaros et al.

Georgieff et al. do not expressly disclose of dehumidifying the waste anesthetic gas and details related thereto.

As aforementioned, Psaros et al. teach of a dehumidifying device that is used to protect equipment from condensation that may occur during the transport of fluid through the equipment.

Regarding claim 15, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the existing apparatus of Georgieff et al. by dehumidifying the fluid flowing through the apparatus, as taught by Psaros et al., so to provide a means of removing any water vapor and damage that it may cause within the

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apparatus when the vapor condenses (see col. 1, lines 14-27), thus increasing the apparatus' reliability and efficiency.

Regarding claim 16, Georgieff et al. disclose a condensation chamber (24 – pressure vessel) (as seen in the Figure).

Regarding claim 16, it would have been obvious to one of ordinary skill in the art at the time of the invention that the existing apparatus of Georgieff et al. as modified by Psaros et al. would have been capable of being modified through the incorporation of the dehumidification device into the apparatus' pressure vessel (24), so to provide a means of removing any water vapor and damage that it may cause within the apparatus upon the condensing of the vapor (see col. 1, lines 14-27), thus increasing the apparatus' reliability and efficiency.

Regarding claim 18, Georgieff et al. disclose the condensation chamber (24 – pressure vessel) is cooled by a process selected from the group consisting of heat exchange methods (the fluid transported between the second and third pressure vessels inherently exhibits a form of heat exchange with the surrounding environment; col. 5, lines 38-57; col. 6, lines 19-25) and compression/re-expansion techniques (see col. 5, lines 17-57; col. 6, lines 26-46; Figure).

Regarding claim 19, Georgieff et al. disclose a hot side of a heat exchange device (the fluid transported between the second and third pressure vessels inherently exhibits a form of heat exchange with the surrounding environment, thus further indicating that a portion of the vessels must be hotter than the remaining portions; col. 5, lines 38-57; col. 6, lines 19-25).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the existing apparatus of Georgieff et al. as modified by Psaros et al. would have been capable of being modified through the incorporation of the discharge device (22)



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and discharge throttle (33) into the apparatus' cooling apparatus (20), so to provide a means of removing any residual gas constituents from the apparatus (see col. 5, lines 29-37), thus increasing the apparatus' reliability and efficiency.

**Response to Arguments**

This Office Action has been made non-final to allow the Applicant the opportunity to respond to the newly cited references and rejections.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Early whose telephone number is (571) 272-3681. The examiner can normally be reached on Monday - Friday, 7am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJE  
2/15/07

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